

## Hot Air Balloon

by Arya Akhavan (January 2013)

Angles for R.I. = 1.760

72 + 13 girdles = 85 facets

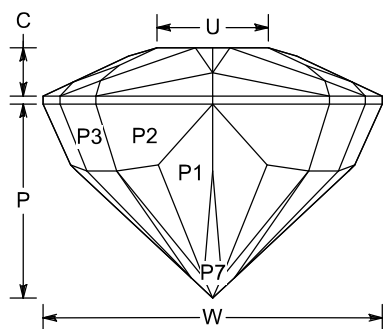
8-fold, mirror-image symmetry

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L/W = 1.025 T/W = 0.387 U/W = 0.327

P/W = 0.571 C/W = 0.142

Vol./W<sup>3</sup> = 0.255



### PAVILION

P1	44.00°	03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93	Cut to centerpoint.
G1	90.00°	10-20-34-62-76-86	Set stone size.
G2	90.00°	15-81	Meet P1, G1 (not a true girdle level!)
G3	90.00°	27-69	Meet P1, G1 (not a true girdle level!)
G4	90.00°	42-54	Meet P1, G1 (not a true girdle level!)
G5	90.00°	48	Meet P1, G4 (not a true girdle level!)
P2	66.50°	10-20-34-62-76-86	Meet P1, G1 (level girdle)
P3	66.73°	15-81	Level girdle.
P4	66.18°	27-69	Level girdle.
P5	67.95°	42-54	Level girdle.
P6	69.48°	48	Level girdle.
P7	43.00°	96-12-24-36-60-72-84	Meet P1, P2, P3; P1, P2, P5 (only 4 facets meet)

### CROWN

C1	38.93°	48	Set girdle width.
C2	29.49°	42-54	Level girdle.
C3	29.49°	20-34-62-76	Level girdle.
C4	29.49°	27-69	Level girdle.
C5	29.49°	15-81	Level girdle.
C6	34.13°	10-86	Level girdle.
C7	25.00°	12-18-78-84	Meet G1, G2, C3, C5; G1, G2, C5, C6
C8	25.00°	24-30-66-72	Meet G1, G3, C3, C4
C9	25.00°	38-58	Meet G1, G4, C2, C3
C12	22.59°	20-76	Meet C3, C7, C8; C8, C11
C13	21.93°	15-81	Meet C5, C7
C11	21.24°	34-62	Meet C3, C8, C9
C10	18.07°	46-50	Meet C1, C2
C15	16.14°	24-72	Meet C8, C11, C12
C14	15.51°	02-94	Meet C6, C7
T	0.00°	Table	Meet C9, C10, C11; C7, C13, C14; C12, C13, C15

I started out trying to make a heart, and ended up with a hot air balloon. This barion may be time-consuming, but if you cut it in rutile, it looks strikingly like a rainbow hot air balloon. Plus, there's all kinds of "dispersion/fire" jokes you can make. Works in materials from orthoclase to rutile (RI = 1.52 - 2.62) with no changes.

Suggested length = 12-18 mm

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